Fertilizers - Co

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WORTHLESS FERTILIZERS

My attention has from time to time been drawn to articles in papers and periodicals and to advertising literature, concerning the alleged value of various naturally occurring rocks and mineral deposits as fertilizers. Such of these as I have been able to investigate have been found totally without merit; and investors either in the material or in the stock of companies designed to exploit the deposits, run grave risk of financial loss.

It should be pointed out in the first place that few materials of this kind have any agricultural value, until they have been refined as in the case of nitrate or potash deposits, or so treated as to convert comparatively inert constituents into a form that will admit of their being taken up by plants, as in the case of phosphate rocks. At the present time the raw material for the manufacture of nitrate of soda is found in Chile; Germany furnishes the potash deposits; and the phosphate rocks suitable for manufacture are found in Northern Africa, the Southeastern States and in a section comprising the southwestern part of Wyoming, the southeastern part of Idaho and northern Utah. Up to the present no local deposits of any of these materials have been extensively utilized for manufacturing purposes. And so far as I am aware, no such local deposits of sufficiently high grade have been developed to enter into competition with those from the above mentioned sources.

The idea has frequently been advanced that certain common rocks, notably those containing potash feldspar, should be of value as fertilizer because of their content of potash. When we consider the relatively stable and inert character of the complex silicates and the further fact that these are already present in large quantities in natural soils, it is difficult to see how applications of such materials would result in any immediate or important crop increase.

The well known fact that lava rocks have frequently broken up into fertile soils within a very limited period is used as an argument to prove that lavas should make a good fertilizer. This, however,

does not follow. A mineral fertilizer to be worth the cost of application should contain relatively large amounts of one or more of the so-called "plant foods" in a comparatively easily soluble condition. To furnish an amount of actual potash equivalent to that in an ordinary application of sulfate of potash would require a relatively enormous quantity of ground lava of average composition. In addition the condition in which potash, the essential constituent, is combined with the other rock constituents is such as to justify little hope of its being utilized by plants within a reasonable period of time. Potash insoluble in water, as it occurs in such materials, has no standing among reputable agriculturists nor under the laws of the several States.

Exploiters of worthless materials seem to have two methods of working: one is by the use of testimonials from real or fictitious persons who are supposed to have used the substances with advantage; the other is by the quotation of chemical analyses. The first is subject to all the abuses of a patent medicine testimonial and in the second case the uninformed investor is awed by an array of figures which he does not understand and cannot interpret. Furthermore, the layman is apt to be impressed by the reputation of the chemist who made the analysis. This is a grave error because reputable chemists frequently make analyses of samples of material, the source of which is unknown to them. It is, accordingly, easy to quote a correct analysis of a high grade sample as applying to lots of goods or deposits which they do not represent. Even well intentioned persons in taking samples tend to select the best specimens and fail to realize that these may not represent the deposit as a whole.

The purchaser of materials intended for use as fertilizer should understand that the sale of fertilizers in California is regulated by law and licensed by the State. All legitimate fertilizer manufacturers and dealers handling goods not licensed by others are registered with the Fertilizer Control of the University of California. For their own protection consumers should see that all goods purchased by them bear the name and registry number of the manufacturer. Attempts to sell unregistered and possibly worthless materials should be reported to the Fertilizer Control.

The prospective purchaser of stock in companies designed to work mineral deposits should bear in mind that, with the exception of high grade gypsum, there are few naturally occurring minerals which can be profitably applied directly to the soil as fertilizers even when finely ground. The manufacture of fertilizers is a complex business, requiring technical skill and for most classes of goods considerable capital. No person should buy stock of such companies unless he is absolutely sure of the skill and integrity of the promoters and has expert advice as to the suitability of the proposed raw material as a constituent of fertilizers.

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